

ABSTRACT OF THE DISCLOSURE

The thin-film magnetic head of the present invention is provided with an antiferromagnetic layer, a pinned layer whose direction of magnetization is fixed by exchange-coupling with the antiferromagnetic layer, a free layer whose direction of magnetization varies according to external magnetic field, an intermediate layer disposed between the pinned layer and free layer, and a pair of electrode layers for supplying a sense current in a layer thickness direction of the free layer. One electrode layer is connected to the pinned layer. Due to this configuration, a sense current flows through the free layer, the intermediate layer, and the pinned layer, but basically does not flow through the antiferromagnetic layer. As a consequence, the antiferromagnetic layer does not contribute to total resistance of the magnetoresistance element, allowing a high magnetoresistance ratio to be obtained.

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